**Commonwealth of Kentucky**
**Division for Air Quality**

# *PERMIT STATEMENT OF BASIS*

DRAFT
Title V, Construction / Operating
Permit: V-07-013
Sun Fiberglass Products of Kentucky, Inc.
Albany, KY 42602
April 9, 2007
D. Brian Ballard, Reviewer

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| SOURCE ID: | 21-053-00022 |
| SOURCE A.I. #: | 84569 |
| ACTIVITY ID: | APE20070001 |

**SOURCE DESCRIPTION:**

The Division received an application from Sun Fiberglass Products of Kentucky, Inc. on March 27, 2007 for the construction and operation of a reinforced plastic composites production facility. The facility will have an open molding gel coat and lamination process for the production of new fiberglass products. The predominate product to be manufactured is fiberglass pools.

The process area, which is denoted as Emission Unit 01 (EU01) in the permit will consist of ten spray areas. Each spray area will have a dry filter for control of particulate emissions and an exhaust stack through the roof. Spray areas are denoted as EF-1 through EF-10. Eight of the ten areas will be identical, each having a 10,000 ACFM exhaust fan and a stack through the roof. The remaining two spray areas will appear identical to the first eight but will exhaust 12,000 ACFM. Each spray area is an emission point. Each emission point includes two Magnum Venus Fluid Impingement Technology (FIT) atomized gel coat guns, two flow coat chopper guns, and associated equipment used for applying gel coat, resin and chopped fiberglass on various molds. The open molding operation types for the application techniques as identified in Table 1 of 40 CFR 63 Subpart WWWW are atomized gel coat application and mechanical non-atomized resin application.

Insignificant emissions sources at the facility will include an 8,000 gallon resin storage tank; natural gas fired makeup air units (MAU-1 and MAU-2 at 4,500 MBTU/hr natural gas / propane input each); space heating and cooling serving the general office spaces (HC-1, HC-2 and HC-3 at 250 MBTU/hr natural gas / propane input each); and machinery lubricants and waxes, including oils, greases or other lubricants applied as temporary protective coatings to the fiberglass products.

The expected installation date for the facilities described above is in May of 2007.

**COMMENTS:**

This facility will be a major source of HAP emissions and will therefore be subject to 40 CFR 63.5780 to 63.5935 (Subpart WWWW), "National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production", applicable with respect to HAP emissions to those affected sources specified in § 63.5790 upon startup of the new source.

The affected sources at this facility include the following operations: open molding, mixing, cleaning of equipment used in reinforced plastic composites manufacture and HAP-containing materials storage. Operations which are specifically excluded from any requirements of Subpart WWWW include: application of mold sealing and release agents; mold stripping and cleaning; and application of putties, polyputties, and adhesives.

**COMMENTS (CONTINUED):**

This facility projects its raw material usage to be 500 tons per year and estimates emissions to be 377 lb organic HAP per ton of raw material (resin and gel coat), resulting in 94.25 tons per year of organic HAP. Based on this projection the facility has assumed that it will be able to meet the standards specified in §63.5805(c). The permit contains a source-wide limit on VOC emissions of 95 tons per consecutive 12-month period. VOC emissions originate from use of the following materials: gel coats, resins, catalysts, release agents and adhesives. The cleanup solvent specified in the application is acetone, which is not a VOC as defined in 40 CFR 51.100(s). Emissions of particulate matter are assumed to originate from atomized gel coat application. A particulate matter emission factor was estimated based on the highest inorganic solid content gel coat and a transfer efficiency of gel coat to the mold of 98 percent. The dry particulate filters are assumed to control 95 percent of particulate emissions. An hourly particulate matter emission rate of 0.15 pounds per hour from gel coat application was determined.

**EMISSION AND OPERATING CAPS DESCRIPTION:**

The permit contains a source-wide limit on VOC emissions of 95 tons per consecutive 12-month and/or 48 week period. Pursuant to § 63.5805(c), the permittee shall meet the work practice standards in Table 4 of Subpart WWWW for the resin storage, equipment cleaning and mixing operations. Dry filters shall be in place during the application of gel coats and the filters shall be replaced periodically to assure design air flow for protection of employees, and to limit particulate emissions.

**PERIODIC MONITORING:**

The permit contains the following periodic monitoring requirements:

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| A qualitative visual observation of the opacity of emissions shall be performed from the exhaust fan stacks on a weekly basis and a log of the observations maintained. If visible emissions from the stacks are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs. |
| Applicable monitoring requirements as specified in § 63.5895(b). |
| Applicable monitoring requirements as specified in § 63.5895(c). |
| Applicable monitoring requirements as specified in § 63.5895(d). |
| The permittee shall monitor the weekly usage in pounds of the following materials for the purpose of determining monthly and/or weekly VOC emissions: Gel coats, resins, catalysts, release agents, VOC containing cleanup solvents and adhesives. |

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.